

**ABSTRACT**

Disclosed herein are a system and method for status monitoring, including debug error detection, during data packet processing. In general terms, the system for status monitoring during data packet processing can be implemented as a system  
5 including a packet processor and a buffer. The packet processor generates processing data based on one or more control structures while revising packet data. The packet processor generates the processing data while performing one or more lookup cycles. The buffer records the processing data and the status of the one or more control structures. The processing data includes a lookup number and the lookup number  
10 identifies the number of cycles performed by the packet processor.